

Title (en)  
SYSTEMS AND METHODS FOR MATCHING ONCOLOGY SIGNATURES

Title (de)  
SYSTEME UND VERFAHREN ZUR ANPASSUNG VON ONKOLOGIE-SIGNATUREN

Title (fr)  
SYSTÈMES ET MÉTHODES DE MISE EN CORRESPONDANCE DE SIGNATURES ONCOLOGIQUES

Publication  
**EP 3340996 A4 20190612 (EN)**

Application  
**EP 16842698 A 20160826**

Priority  
• US 201562211562 P 20150828  
• US 201562253342 P 20151110  
• US 2016049063 W 20160826

Abstract (en)  
[origin: US2017056530A1] Techniques to profile a disease or a disorder (e.g., a tumor) based on a protein activity signature are disclosed herein. An example method can include measuring quantitatively protein activity of a plurality of master regulator proteins in a sample from a disease or disorder; and profiling the tumor from the quantitative protein activity of the master regulator proteins. Also disclosed are methods of identifying a compound or compounds that treats diseases or disorders (e.g., inhibit tumor cell growth).

IPC 8 full level  
**A61K 35/13** (2015.01); **G16B 25/10** (2019.01); **C12N 5/09** (2010.01); **G01N 33/574** (2006.01); **G16B 5/00** (2019.01)

CPC (source: EP US)  
**G01N 33/57484** (2013.01 - EP US); **G01N 33/68** (2013.01 - EP US); **G16B 5/00** (2019.01 - EP US); **G16B 25/10** (2019.01 - EP US); **G01N 2500/20** (2013.01 - US)

Citation (search report)  
• [X] US 2011172929 A1 20110714 - CALIFANO ANDREA [US]  
• [X] JUNG HOON WOO ET AL: "Elucidating Compound Mechanism of Action by Network Perturbation Analysis", CELL, vol. 162, no. 2, 1 July 2015 (2015-07-01), AMSTERDAM, NL, pages 441 - 451, XP055537755, ISSN: 0092-8674, DOI: 10.1016/j.cell.2015.05.056  
• [Y] MARIANO J ALVAREZ ET AL: "Using viper, a package for Virtual Inference of Protein-activity by Enriched Regulon analysis", 22 July 2013 (2013-07-22), pages 1 - 14, XP055554270, Retrieved from the Internet <URL:https://static1.squarespace.com/static/5697c2e5e0327ca6778bc453/t/56f40934f8baf3727f8e7e78/1458833718573/Viper.pdf> [retrieved on 20190208]  
• [Y] MUNA AFFARA ET AL: "Vasohibin-1 is identified as a master-regulator of endothelial cell apoptosis using gene network analysis", BMC GENOMICS, BIOMED CENTRAL, vol. 14, no. 1, 16 January 2013 (2013-01-16), pages 23, XP021138614, ISSN: 1471-2164, DOI: 10.1186/1471-2164-14-23  
• [Y] KAROL BACA-LÓPEZ ET AL: "The Role of Master Regulators in the Metabolic/Transcriptional Coupling in Breast Carcinomas", PLOS ONE, vol. 7, no. 8, 27 August 2012 (2012-08-27), pages e42678, XP055554284, DOI: 10.1371/journal.pone.0042678  
• [Y] FEDERICO M. GIORGI ET AL: "Inferring Protein Modulation from Gene Expression Data Using Conditional Mutual Information", PLOS ONE, vol. 9, no. 10, 14 October 2014 (2014-10-14), pages e109569, XP055554296, DOI: 10.1371/journal.pone.0109569  
• [XY] MICHAEL N. C. FLETCHER ET AL: "Master regulators of FGFR2 signalling and breast cancer risk", NATURE COMMUNICATIONS, vol. 4, no. 1, 17 September 2013 (2013-09-17), XP055554945, DOI: 10.1038/ncomms3464  
• [IY] FRANCESCO NIOLA ET AL: "Mesenchymal high-grade glioma is maintained by the ID-RAP1 axis", JOURNAL OF CLINICAL INVESTIGATION, vol. 123, no. 1, 17 December 2012 (2012-12-17), GB, pages 405 - 417, XP055586459, ISSN: 0021-9738, DOI: 10.1172/JCI63811  
• See references of WO 2017040311A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 10777299 B2 20200915; US 2017056530 A1 20170302**; CN 108348547 A 20180731; CN 108348547 B 20230922; EP 3340996 A1 20180704; EP 3340996 A4 20190612; EP 3340996 B1 20220223; ES 2913294 T3 20220601; HK 1257686 A1 20191025; US 2021257044 A1 20210819; WO 2017040311 A1 20170309

DOCDB simple family (application)  
**US 201615249069 A 20160826**; CN 201680062051 A 20160826; EP 16842698 A 20160826; ES 16842698 T 20160826; HK 19100052 A 20190103; US 2016049063 W 20160826; US 202017020715 A 20200914